INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

May 15, 2003

RE: **UNITED EXPRESSLINE 039-16923-00577**
TO: Interested Parties / Applicant

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4 (d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for consideration at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

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May 15, 2003

Mr. Jared Hochstettler
United Expressline, Inc.
2208 Middlebury Street
Elkhart, Indiana 46516,

Re: Registered Construction and Operation Status,
R 039-16923-00577

Dear Mr. Hochstettler:

The application from United Expressline, Inc., received on December 20, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1, it has been determined that the following trailer manufacturing source, to be located at 2208 Middlebury Street, Elkhart, Indiana 46516, is classified as registered:

(a) Two (2) natural gas-fired furnaces, identified as F1 and F2, heat input capacity: 0.400 million British thermal units per hour each.

(b) Four (4) natural gas-fired radiant heaters, identified as R1 - R4, heat input capacity: 0.130 million British thermal units per hour each.

(c) One (1) natural gas-fired hanging furnace, identified as HF-1, heat input capacity: 0.125 million British thermal units per hour.

(d) One (1) trailer assembly line, capacity: 0.375 trailers (1,976 pounds of product) per hour, consisting of the following:

(1) One (1) woodworking operation, capacity: 120 pounds of precut plywood per hour,

(2) Six (6) Metal Inert Gas (MIG) welding stations, using ER70S-3 wire, constructed in 2002, capacity: 3.50 pounds of welding wire per hour each.

(3) One (1) paint shop, equipped with three (3) airless spray guns and dry filters to control particulate overspray, exhausting to Stack S-1, consisting of the following surface coating operations:

(A) One (1) pre wash operation, using wiped applicators,

(B) One (1) undercoat application,

(C) One (1) trailer paint application, and

(D) One (1) gun cleaning operation.

(4) One (1) plywood flooring application, using roll coating applicators;

(5) One (1) caulks and sealants operation, using tube applicators;

(e) One (1) touch-up operation, using manual spray applicators.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following:

   (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

   (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

2. Any change or modification which may increase the potential to emit a combination of HAPs, VOC, PM or PM_{10} to twenty five (25) tons per year or a single HAP to ten (10) tons per year from this source shall require approval from IDEM, OAQ prior to making the change.

3. Pursuant to 40 CFR 52, Subpart P, the particulate (PM) from the spray application within the one (1) paint shop, located in the one (1) trailer assembly line shall not exceed the pound per hour emission rate established as E in the following formula:

   Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

   $E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
   P = process weight rate in tons per hour

4. Pursuant to 326 IAC 6-3-2(d), particulate from the surface coating, shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications. This requirement to operate the control is not federally enforceable.

5. Pursuant to 326 IAC 8-2-9, the owner or operator shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5), pounds of VOC per gallon of coating, excluding water, as delivered to the applicator at the one (1) paint shop and the one (1) caulks and sealants operation.

6. Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of one (1) trailer assembly line during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

7. Any change or modification that increases VOC emissions from the coating of structural wood components to twenty-five (25) tons per year or more may render the requirements of 326 IAC 8-1-6 applicable and shall require prior IDEM, OAQ approval.

8. Compliance with the VOC content limit in Condition #5 shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

$$A = [\,\Sigma\, C \times U) / \Sigma\, U]$$

Where: A = the volume weighted average in pounds VOC per gallon less water as applied;
C = the VOC content of the coating in pounds VOC per gallon less water as applied; and
U = the usage rate of the coating in gallons per day.

9. To document compliance with Condition #5, the Permittee shall maintain records in accordance with (a) through (e) below. Records maintained for (a) through (e) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition #5.

(a) The VOC content of each coating material and solvent used less water.

(b) The amount of coating material and solvent used on daily basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvent.

(c) The volume weighted average VOC content of the coatings used for each day;

(d) The daily cleanup solvent usage; and

(e) The total VOC usage for each day.

This registration is the first air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

Compliance Branch
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,
Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

MSS/MES

cc: File - Elkhart County
Elkhart County Health Department
Air Compliance - Tony Pelath
Northern Regional Office
Permit Filing - Lisa Lawrence
Air Programs Section- Michele Boner
Compliance Branch - Karen Nowak

Registration

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3)

Company Name:	**United Expressline, Inc.**
Address:	**2206 Middlebury Street**
City:	**Elkhart, Indiana 46516**
Authorized individual:	**Michael Huddleston**
Phone #:	**574-389-4643**
Registration #:	**R 039-16923-00577**

I hereby certify that United Expressline, Inc. is still in operation and is in compliance with the requirements of Registration **039-16923-00577**.

Name (typed):
Title:
Signature:
Date:

May 15, 2003

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for
New Source Construction and Registration

Source Background and Description

Source Name:	**United Expressline, Inc.**
Source Location:	**2208 Middlebury Street**
County:	**Elkhart**
SIC Code:	**3799**
Operation Permit No.:	**R 039-16923-00577**
Permit Reviewer:	**Michael S. Schaffer**

The Office of Air Quality (OAQ) has reviewed an application from United Expressline, Inc. relating to the construction and operation of trailer manufacturing source.

Permitted Emission Units and Pollution Control Equipment

There are no permitted facilities operating at this source during this review process.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment

The source consists of the following new facilities/units:

(a) Two (2) natural gas-fired furnaces, identified as F1 and F2, heat input capacity: 0.400 million British thermal units per hour each.

(b) Four (4) natural gas-fired radiant heaters, identified as R1 - R4, heat input capacity: 0.130 million British thermal units per hour each.

(c) One (1) natural gas-fired hanging furnace, identified as HF-1, heat input capacity: 0.125 million British thermal units per hour.

(d) One (1) trailer assembly line, capacity: 0.375 trailers (1,976 pounds of product) per hour, consisting of the following:

(1) One (1) woodworking operation, capacity: 120 pounds of precut plywood per hour,

(2) Six (6) Metal Inert Gas (MIG) welding stations, using ER70S-3 wire, constructed in 2002, capacity: 3.50 pounds of welding wire per hour each.

(3) One (1) paint shop, equipped with three (3) airless spray guns and dry filters to control particulate overspray, exhausting to Stack S-1, consisting of the following surface

coating operations:

(A) One (1) pre wash operation, using wiped applicators,

(B) One (1) undercoat application,

(C) One (1) trailer paint application, and

(D) One (1) gun cleaning operation.

(4) One (1) plywood flooring application, using roll coating applicators;

(5) One (1) caulks and sealants operation, using tube applicators;

(e) One (1) touch-up operation, using manual spray applicators.

Existing Approvals

There are no existing approvals for this source.

Source Definition

United Expressline, Inc. operates a covered trailer manufacturing source under FESOP 039-11645-00096, issued on June 25, 2001, located at 19986 CR 8, Bristol, Indiana 46507, which is six (6) miles from the location of this proposed source.

On January 23, 2003, United Expressline, Inc. indicated that there will be no physical connection (i.e., dedicated rail spur, pipeline, or private road) between the existing plant (Plt. ID 00096), and the proposed plant (Plt. ID 00577). In addition, there is no production link between the two (2) facilities. Therefore, IDEM, OAQ, has determined that the proposed plant will be considered a new separate source.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
S-1	Paint Shop	22	2.67	8,500	Ambient

Enforcement Issue

The six (6) metal inert gas (MIG) welding stations, have a potential to emit of less than five (5) tons per year total and were exempt from permission to construct and operate when they were installed in 2002. Therefore no enforcement actions are pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional

information submitted by the applicant.

An application for the purposes of this review was received on December 20, 2002, with additional information received on January 27 and 31, as well as March 13, 2003.

Emission Calculations

See pages 1 through 6 of 6 of Appendix A of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	**Potential To Emit** (tons/year)
PM	3.96
PM_{10}	3.90
SO_2	0.004
VOC	15.5
CO	0.532
NO_X	0.633

HAPs	**Potential To Emit** (tons/year)
Xylene	0.447
MIBK	0.183
MEK	0.323
Toluene	7.21
Hexane	0.087
Ethyl Benzene	0.062
Glycol Ethers	1.02
Methanol	0.313
Manganese	0.029

HAPs	Potential To Emit (tons/year)
Nickel	0.0001
Chromium	0.0001
Benzene	0.00001
Dichlorobenzene	0.00001
Formaldehyde	0.0005
Lead	0.000003
Cadmium	0.00001
TOTAL	9.68

(a) The potential to emit (as defined in 326 IAC 2-5.1-2) of VOC is less than twenty-five (25) tons per year and greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.1-2.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

Actual Emissions

No previous emission data has been received from the source.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM_{10}	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR Part 52.21.

(b) Elkhart County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	**Emissions** (tons/yr)
PM	2.75
PM_{10}	2.69
SO_2	0.004
VOC	15.5
CO	0.532
NO_X	0.633
Single HAP	7.21
Combination HAPs	9.68

This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR Part 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than one hundred (100) tons per year,

(b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and

(c) any combination of HAPs is less than twenty-five (25) tons per year.

This is the first air approval issued to this source.

Federal Rule Applicability

(a) This source is not subject to the requirements of the New Source Performance Standard, Standards of Performance for Surface Coating of Metal Furniture, 40 CFR Part 60, Subpart EE, since this new source will not manufacture any products in the SIC codes listed in the

definition of metal furniture. The metal components manufactured at this source are structural and are not considered furniture.

(b) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), National Emission Standards for Wood Furniture Manufacturing Operations, 40 CFR 63, Subpart JJ, since this new source will not manufacture any products in the SIC codes listed in the definition of wood furniture. The wood components manufactured at this source are structural and are not considered furniture.

State Rule Applicability - Entire Source

326 IAC 2-4.1-1 (New Source Toxics Control)

This source is not a major source of HAP emissions. Therefore, 326 IAC 2-4.1-1 is not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in Elkhart County and the potential to emit VOC, PM_{10}, NO_X, CO, and SO_2 is less than one hundred (100) tons per year each, therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

On June 12, 2002, revisions to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this rule was previously referred to as 326 IAC 6-3 (Process Operations). As of the date this permit is being issued these revisions have not been approved by EPA into the Indiana State Implementation Plan (SIP); therefore, the following requirements from the previous version of 326 IAC 6-3 (Process Operations) which has been approved into the SIP will remain applicable requirements until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action.

326 IAC 6-3 (Process Operations)

(a) Pursuant to 40 CFR 52 Subpart P, the particulate matter (PM) from the spray application within the one (1) paint shop, located in the one (1) trailer assembly line, shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Pursuant 326 IAC 6-3-2(d), under the rule revision, particulate from the spray applications within the one (1) paint shop will be controlled by a dry particulate filter and the Permittee will operate the control device in accordance with manufacturer's specifications.

(b) Pursuant to 326 IAC 6-3-1(b)(6), the one (1) plywood flooring application is not subject to the

requirements of 326 IAC 6-3 because the applications used at this facility are roll coating.

(c) Pursuant to 326 IAC 6-3-1(b)(7), the caulks and sealants operation is not subject to the requirements of 326 IAC 6-3 because the applications used at this facility are flow (tube) coatings.

(d) Pursuant to 326 IAC 6-3-1(b)(7) and (12), the touch-up operation is not subject to the requirements of 326 IAC 6-3 because the applications used at this facility are flow coatings and manual spray cans to repair minor surface damage or imperfections.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

(a) Pursuant to 326 IAC 6-3-1(b)(14), the one (1) woodworking operation is not subject to the requirements of 326 IAC 6-3-2 because potential particulate emissions from the one (1) woodworking operation is less 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-1(b)(9), the six (6) metal inert gas (MIG) welding stations, are not subject to the requirements of 326 IAC 6-3-2 because less than a total of 625 pounds of rod or wire per hour is consumed by those stations.

326 IAC 8-1-6 (New facilities; General reduction requirements)

This source does not have potential VOC emissions of twenty-five (25) tons per year or more. Therefore, 326 IAC 8-1-6 is not applicable. However, any change or modification that increases VOC emissions from coating of the structural wood components in the one (1) trailer assembly operation to twenty-five (25) tons per year or more may render the requirements of 326 IAC 8-1-6 applicable and will require prior IDEM, OAQ approval.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

(a) The one (1) touch-up operation is not subject to the requirements of 326 IAC 8-2-9 because the facility is not part of the trailer assembly line and has a potential to emit of less than fifteen (15) pounds of VOC per day.

(b) This source coats metal frame parts under the SIC Code of major group 37 and has a potential to emit from the one (1) trailer assembly line of greater than fifteen (15) pounds of VOC per day. Therefore, pursuant to the 326 IAC 8-2-9, the paint shop and caulks and sealants operation in the one (1) trailer assembly line are subject to following requirements:

(1) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator whenever metal is coated within the one (1) paint shop and the one (1) caulks and sealants operation shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

(2) The source shall comply with this rule by calculating the daily volume weighted

average of VOC content whenever metal is coated using the following equation:

$$A = [\ 3\ C \times U) / 3\ U]$$

Where: A = the volume weighted average in pounds VOC per gallon less water as applied;
C = the VOC content of the coating in pounds VOC per gallon less water as applied; and
U = the usage rate of the coating in gallons per day.

326 IAC 8-2-12 (Wood furniture and cabinet coating)

This new source will not manufacture any products in the SIC codes listed in the definition of wood furniture. Thus, the wood components manufactured at this source are structural and are not considered furniture. Therefore, the requirements of 326 IAC 8-2-12 are not applicable.

Conclusion

The construction and operation of this trailer manufacturing source shall be subject to the conditions of the attached proposed New Source Construction and R 039-16923-00577.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company United Expressline, Inc.
Address (2208 Middlebury Street, Elkhart, Indiana 46516
Registrati 039-16923
Plt ID: 039-00577
Reviewer: Michael S. Schaffer
Date: December 20, 2002

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	Product Being Coated
PAINT SHOP																	
Undercoat																	
Cutback Asphalt OL-950	7.64	52.3%	10.0%	42.3%	9.17%	57.7%	0.505	0.375	3.56	3.23	0.612	14.7	2.68	0.756	5.60	75.0%	Metal Trailer Fram
Trailer Paint																	
Gray A.D. Primer OL-255	11.54	34.04%	5.00%	29.0%	6.92%	91.0%	0.0430	0.375	3.60	3.35	0.054	1.30	0.237	0.134	3.68	75.0%	Metal Trailer Fram
High Solids Black A.D. Enamel OL	8.18	47.18%	5.00%	42.2%	4.91%	41.0%	0.273	0.375	3.63	3.45	0.353	8.48	1.55	0.484	8.42	75.0%	Metal Trailer Fram
Pre-Wash																	
Lacquer Thinner	8.57	100%	15.0%	85.0%	15.43%	84.57%	0.0700	0.375	8.61	7.28	0.191	4.59	0.838	0.00	8.61	100.0%	Metal Trailer Fram
Aromatic Hydrocarbons	7.25	100%	0.00%	100%	0.00%	0.00%	0.0800	0.375	7.25	7.25	0.217	5.22	0.953	0.00	N/A	100.0%	Metal Trailer Fram
Gun Cleaner																	
Mineral Spirits 66/3	7.16	100%	0.00%	100%	0.00%	0.00%	0.007	0.375	7.16	7.16	0.019	0.451	0.082	0.00	N/A	100.0%	
PLYWOOD FLOORING																	
Pro-Tech Latex/Flat-Black OL-413	10.83	35.94%	5.00%	30.9%	6.50%	64.06%	0.186	0.375	3.58	3.35	0.234	5.61	1.02	0.000	5.23	100.0%	Metal Trailer Fram
Heavy Duty Latex Diluted 1:1 with V	9.58	85.0%	79.32%	5.68%	88.12%	15.0%	2.00	0.375	4.58	0.544	0.408	9.79	1.79	0.00	3.63	100.0%	Wood Trailer Floo
CAULKS AND SEALANTS																	
Silicone Sealant	8.66	4.99%	0.00%	4.99%	0.00%	50.0%	0.002	0.375	0.432	0.432	0.0003	0.008	0.001	0.00	N/A	100.0%	Metal and Wood
Goecel	7.91	39.3%	0.00%	39.3%	0.00%	50.0%	1.172	0.375	3.11	3.11	1.37	32.8	5.98	0.00	N/A	100.0%	Metal and Wood
TOUCH-UP OPERATIONS																	
Spray Can Paint	9.29	53.23%	0.00%	53.2%	0.00%	33.54%	0.0380	0.375	4.95	4.95	0.070	1.69	0.309	0.14	N/A	50.0%	Metal and Wood
S-722 (Cleaner)	8.47	91.0%	85.3%	5.70%	86.75%	50.0%	0.0140	0.375	3.64	0.483	0.003	0.061	0.011	0.00	N/A	100.0%	Metal and Wood
Instant Enamel	9.50	34.22%	0.00%	34.2%	0.00%	50.0%	0.00200	0.375	3.25	3.25	0.002	0.059	0.011	0.00	N/A	100.0%	Metal and Wood
Note that all properties of the materials are "as applied" to the substrates							PM Contrc	80.0%									
									Total Uncontrolled Emiss		**3.53**	**84.7**	**15.5**	**1.51**			
									Controlled Emissions		**3.53**	**84.7**	**15.5**	**0.302**			

Potential to Emit **Add worst case coating to all solvents**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company N United Expressline, Inc.
Address Cit 2208 Middlebury Street, Elkhart, Indiana 46516
Registratior 039-16923
Plt ID: 039-00577
Reviewer: Michael S. Schaffer
Date: December 20, 2002

Material	Density (lbs/gal	Gallons of Material (gal/unit)	Maximu (unit/ho	Weight % Xylene	Weight % MIBK	Weight % MEK	Weight % Toluene	Weight % Hexane	Weight % Ethyl Benzene	Weight % Glycol Ether	Weight % Methanol	Xylene Emissior	MIBK Emissions	MEK Emissions	Toluene Emissior	Hexane Emissior	Ethyl Benz Emissions	Glycol E Emissior	Methanol Emissions
PAINT SHOP																			
Trailer Paint																			
Gray A.D. Primer OL-255	11.54	0.0430	0.375	15.0%	0.00%	5.00%	1.00%	0.00%	5.00%	0.00%	0.00%	0.122	0.000	0.041	0.008	0.000	0.041	0.000	0.000
High Solids Black A.D. Enam	8.18	0.273	0.375	5.00%	5.00%	5.00%	10.0%	0.00%	0.00%	0.00%	0.00%	0.183	0.183	0.183	0.367	0.000	0.000	0.000	0.000
Pre-Wash																			
	8.57	0.0700	0.375	9.00%	0.00%	10.0%	56.0%	1.00%	1.00%	0.00%	25.0%	0.089	0.000	0.099	0.552	0.010	0.010	0.000	0.246
Toluene	7.25	0.0800	0.375	0.00%	0.00%	0.00%	100%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.953	0.000	0.000	0.000	0.000
PLYWOOD FLOORING																			
Pro-Tech Latex/Flat-Black OL	10.83	0.186	0.375	0.00%	0.00%	0.00%	0.00%	2.00%	0.00%	2.00%	2.00%	0.00	0.000	0.000	0.000	0.066	0.000	0.066	0.066
Heavy Duty Latex Diluted 1:1	9.58	2.00	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.944	0.000
CAULKS AND SEALANTS																			
Goecel	7.91	1.172	0.375	0.00%	0.00%	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	5.33	0.000	0.000	0.000	0.000
TOUCH-UP OPERATIONS																			
Spray Can Paint	9.29	0.0380	0.375	9.00%	0.00%	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.052	0.000	0.000	0.000	0.000	0.012	0.000	0.000
S-722 (Cleaner)	8.47	0.0140	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.000
Note that all properties of the materials are "as applied" to the substrates											**Single HAPs**	**0.447**	**0.183**	**0.323**	**7.21**	**0.076**	**0.062**	**1.02**	**0.313**
											Total HAPs	**9.64**							

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Company United Expressline, Inc.
Address (2208 Middlebury Street, Elkhart, Indiana 46516
Registrat 039-16923
Plt ID: 039-00577
Reviewer Michael S. Schaffer
Date: December 20, 2002

Six (6) Metal Inert Gas (MIG) Welding Stations

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS * (lb pollutant / lb electrode)				EMISSIONS (lb/hr)				TOTAL HAPS (lb/hr)
WELDING				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Metal Inert Gas (MIG)(ER7	6.00	3.50		0.0241	0.000318	0.000001	0.000001	0.506	0.007	0.00002	0.00002	0.007
EMISSION TOTALS								PM = PM10	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr								0.506	0.007	0.00002	0.00002	0.007
Potential Emissions lbs/day								12.1	0.160	0.001	0.001	0.161
Potential Emissions tons/ye								**2.22**	0.029	0.0001	0.0001	0.029

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.
Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).
Welding and other flame cutting emission factors are from an internal training session document.
See AP-42, Chapter 12.19 for additional emission factors for welding.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company N United Expressline, Inc.
Address Ci 2208 Middlebury Street, Elkhart, Indiana 46516
Registratio 039-16923
Plt ID: 039-00577
Reviewer: Michael S. Schaffer
Date: December 20, 2002

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Plant-wide natural gas-fired combustion
1.445	12.7	Two (2) furnaces (F1 and F2) rated at 0.4 MMBtu/hr each Four (4) radiant heaters (R1 - R4) rated at 0.13 MMBtu/hr each One (1) hanging furnace (HF-1) rated at 0.125 MMBtu/hr

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.90	7.60	0.600	100 **see below	5.50	84.0
Potential Emission in tons/yr	0.012	0.048	0.004	0.633	0.035	0.532

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
above
emission

See page 5 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Company N United Expressline, Inc.
Address Ci 2208 Middlebury Street, Elkhart, Indiana 46516
Registratio 039-16923
Plt ID: 039-00577
Reviewer: Michael S. Schaffer
Date: December 20, 2002

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	0.00001	0.00001	0.0005	0.011	0.00002

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	Total HAPs
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	0.000003	0.00001	0.00001	0.000002	0.00001	0.012

Methodology is the same as page 4.

The five highest organic and metal HAPs emission factors are prov
Additional HAPs emission factors are available in AP-42, Chapter 1

<u>Plant-wide natural gas-fired combustion</u>
Two (2) furnaces (F1 and F2) rated at 0.4 MMBtu/hr each
Four (4) radiant heaters (R1 - R4) rated at 0.13 MMBtu/hr each
One (1) hanging furnace (HF-1) rated at 0.125 MMBtu/hr

Appendix A: Emissions Calculations
Particulate
From Woodworking Operations

Company N United Expressline, Inc.
Address Ci 2208 Middlebury Street, Elkhart, Indiana 46516
Registratio 039-16923
Plt ID: 039-00577
Reviewer: Michael S. Schaffer
Date: December 20, 2002

Material	Sheets Cut Per Unit	Thickness of Plywood (inches)	Length of Cut (inches)	Width of Cut (inches)	Cubic Inches of Cut Per Sheet	Cubic Inches of Cut Per Unit	Maximum (units/hour)	Cubic Inches of Cut Per Hour	Cubic Yards of Cut Per Hour	Density of wood (pounds/cubic yard)	Potential PM (pounds per hour)	Potential PM (tons/year)
Woodworking Operation												
Plywood	4.00	0.375	96.00	0.125	4.50	18.00	0.38	6.75	0.00014	362.71	0.051	0.222

METHODOLOGY **Total Emissio 0.051 0.222**

Cubic Inches of Cut Per Sheet = Thickness of Plywood (inches) * Lenght of Cut (inches) * Width of Cut (inches)
Cubic Inches of Cut Per Unit = Sheets Cut Per Unit * Cubic Inches of Cut Per Sheet
Cubic Inches of Cut Per Hour = Cubic Inches of Cut Per Unit * Maximum (units/hour)
Cubic Yards of Cut Per Hour = Cubic Inches of Cut Per Hour * (2.074E-4 Yards/ 1 inch)
Potential PM (Pounds Per Hour) = Cubic Yards of Cut Per Hour * Density of Wood (pounds/cubic yard)
Potential PM (tons per year) = Potential PM (Pounds Per Hour) *(8760 hrs/yr) *(1 ton/2000 lbs)